RD-299047

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5313	3D-1

**Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

Line & Station	Offset		Structure Number From	To	Top Elevation (FT.)	Invert Elevation (FT.)	Invert Elevation (FT.)	Minimum Required Slope (%)
L 10+46	24	RT	0401					
L 11+15		LT						
L 13+34	23	LT	0402					
LREV 17+75	28	LT	0403	0404		820.1	817.6	0.3
LREV 20+26	23	RT	0405					
LREV 20+96	23	RT	0406					
LREV 21+55	23	RT	0407					
LREV 21+92	23	LT	0408					
Y1 12+00	30	LT	0409					
LREV 21+10	23	LT	0408A					
Y1 13+40			0410	0411		810.5	808.3	0.5
L 25+26		LT						
L 26+90	23	LT	0502					
L 28+48	23	LT	0503					
L1 25+30	23	RT	0504		827.4			
			0504	0505		825.5	822.5	
L1 27+44	23	RT	0505		824.4			
			0505	0506		822.2	821.2	
L1 28+60	23	RT	0506		823.4			
			0506	0507		821.2	821.0	0.5
L1 29+00	23	RT	0507		823.3			
			0507	0508		821.0	820.9	0.5
L1 29+30	23	RT	0508		823.2			
			0508	0509		820.9	820.7	0.6
L 31+39			0510	0511		820.3	820.1	
L 32+06	23	LT	0512					
L 32+70	23	RT	0513					
L 33+30	23	LT	0514					
L 33+92	23	RT	0515					
L 34+30	23	LT	0516					
L 34+42	23	RT	0517					
L 34+92	23	RT	0518					
L 36+40	23	RT	0519					
L 37+14	25	LT	0520					
L 38+04	28	RT	0521					
L 38+92	31	RT	0522					
L 30+74	25	LT	0523					
L 39+35	38	CL	0602	0601		818.2	817.1	
L 40+90	23	LT	0603					
L 42+00	30	RT	0604	0605		827.0	825.7	
L 42+00	23	LT	0606					
L 42+40	23	LT	0607					
L 42+89		RT						
L 43+84		RT						
L 51+25	23	RT	0608					
L 44+34	23	RT	0609					
L 45+75	25	RT	0610	0611		823.4	822.9	
L 47+80	23	RT	0612					
Y2 12+25		CL	0613	0614		817.0	815.2	

Line & Station	From	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	C. S. Pipe 12 (.064)	15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)
L 10+46	0401																	
L 11+15																		
L 13+34	0402																	
LREV 17+75	0403																	
LREV 20+26	0405																	
LREV 20+96	0406																	
LREV 21+55	0407																	
LREV 21+92	0408																	
Y1 12+00	0409																	
LREV 21+10	0408A																	
Y1 13+40	0410																	
L 25+26																		
L 26+90	0502																	
L 28+48	0503																	
L1 25+30	0504																	
	0504		212															
L1 27+44	0505																	
	0505			116														
L1 28+60	0506																	
	0506			36														
L1 29+00	0507																	
	0507			28														
L1 29+30	0508																	
	0508																	
L 31+39	0510																	
L 32+06	0512																	
L 32+70	0513																	
L 33+30	0514																	
L 33+92	0515																	
L 34+30	0516																	
L 34+42	0517																	
L 34+92	0518																	
L 36+40	0519																	
L 37+14	0520																	
L 38+04	0521																	
L 38+92	0522																	
L 30+74	0523																	
L 39+35	0602																	
L 40+90	0603																	
L 42+00	0604																	
L 42+00	0606																	
L 42+40	0607																	
L 42+89																		
L 43+84																		
L 51+25	0608																	
L 44+34	0609																	
L 45+75	0610																	
L 47+80	0612																	
Y2 12+25	0613																	
SHEET TOTALS			212	180														
PROJECT TOTALS			1128	460														

Line & Station	From	R. C. Pipe Class III 12	15	18	24	30	36	42	R. C. Pipe Class IV 12	15	18	24	30	36	42	R. C. Pipe Class V 12	15	18	24	30
L 10+46	0401																			
L 11+15																				
L 13+34	0402																			
LREV 17+75	0403																		80	
LREV 20+26	0405																			
LREV 20+96	0406																			
LREV 21+55	0407																			
LREV 21+92	0408																			
Y1 12+00	0409																			
LREV 21+10	0408A																			
Y1 13+40	0410																		56	
L 25+26																				
L 26+90	0502																			
L 28+48	0503																			
L1 25+30	0504																			
	0504																			
L1 27+44	0505																			
	0505																			
L1 28+60	0506																			
	0506																			
L1 29+00	0507																			
	0507																			
L1 29+30	0508																			
	0508																	56		
L 31+39	0510																	60		
L 32+06	0512																			
L 32+70	0513																			
L 33+30	0514																			
L 33+92	0515																			
L 34+30	0516																			
L 34+42	0517																			
L 34+92	0518																			
L 36+40	0519																			
L 37+14	0520																	52		
L 38+04	0521																			
L 38+92	0522																			
L 30+74	0523																			
L 39+35	0602			76																
L 40+90	0603																			
L 42+00	0604																	92		
L 42+00	0606																			
L 42+40	0607																			
L 42+89																				
L 43+84																				
L 51+25	0608																20			
L 44+34	0609																			
L 45+75	0610																	60		
L 47+80	0612																			
Y2 12+25	0613																	64		
SHEET TOTALS				76													20	384	136	
PROJECT TOTALS				492	8			92		8	440	136			148		100	892	408	64

Line & Station	From	15" Side Drain Pipe	18" Side Drain Pipe	24" Side Drain Pipe	Endwalls Std. 838.01 or Std. 838.11 (Unless Noted Otherwise) (CY)	Reinforced Endwalls (CY)	Drainage Structure Masonry (CY)	Quantities for Drainage Structures: 0' thru 5' (EACH)	5' thru 10' (A) (LIN. FT.)	10' and above (B) (LIN. FT.)	C.B. Std. 840.01 or Std. 840.02	Frame, Grates, and Hood Std. 840.03 Grate Type E	F	G
L 10+46	0401	20												
L 11+15														
L 13+34	0402	32												
LREV 17+75	0403													
LREV 20+26	0405	36												
LREV 20+96	0406	40												
LREV 21+55	0407	52												
LREV 21+92	0408	20												
Y1 12+00	0409			28										
LREV 21+10	0408A	20												
Y1 13+40	0410													
L 25+26														
L 26+90	0502	32												
L 28+48	0503	32												
L1 25+30	0504							1						
	0504													
L1 27+44	0505							1						
	0505													
L1 28+60	0506							1						
	0506													
L1 29+00	0507							1						
	0507													
L1 29+30	0508							1						
	0508													
L 31+39	0510													
L 32+06	0512	24												
L 32+70	0513	20												
L 33+30	0514	24												
L 33+92	0515	24												
L 34+30	0516	24												
L 34+42	0517	24												
L 34+92	0518	24												
L 36+40	0519	20												
L 37+14	0520													
L 38+04	0521	20												
L 38+92	0522	20												
L 30+74	0523	20												
L 39+35	0602													
L 40+90	0603	20												
L 42+00	0604													
L 42+00	0606	20												
L 42+40	0607	20												
L 42+89														
L 43+84														
L 51+25	0608													
L 44+34	0609	20												
L 45+75	0610													
L 47+80	0612	20												
Y2 12+25	0613													
SHEET TOTALS		628		28				5						
PROJECT TOTALS		4916	366	28	12.000			18	3.6					

Note: Total lin. ft. for pay quantity shall be A + (1.3 X B)

Line & Station	From	Open Throat C.B. Std. 840.04 or Std. 840.05	Concrete Bridge Approach D.I. Std. 840.13	D.I. Std. 840.14 or Std. 840.15	D.I. Frame and Grates Std. 840.16	G.D.I. Type "A" Std. 840.17 or Std. 840.26	G.D.I. Type "B" Std. 840.18 or Std. 840.27	G.D.I. Type "D" Std. 840.19 or Std. 840.28	G.D.I. (W.S. Flat) Frame with Grate Std. 840.20	G.D.I. (W.S. Flat) Frame w/ 2 Grates Std. 840.20	G.D.I. (W.S. Sag) Frame w/ Grate Std. 840.22	G.D.I. (W.S. Sag) Frame w/ 2 Grates Std. 840.22	G.D.I. (N.S. Sag) Frame w/ Grate Std. 840.24	G.D.I. (N.S. Sag) Frame w/ 2 Grates Std. 840.24	G.D.I. (N.S. Flat) Frame w/ Grate Std. 840.29	G.D.I. (N.S. Flat) Frame w/ 2 Grates Std. 840.29	J.B. Std. 840.31 or Std. 840.32	T.B.D.I. for Steel Grates Std. 840.36	Steel Frame with Two Grates Std. 840.37	Convert Existing D.I. to J.B.	Convert Existing J.B. to D.I.	Adjust C.B.	Adjust D.I.	Drainage Pipe Elbows No. & Size	Preformed Scour Hole (Per Each)	Energy Dissipation Basin	Concrete Collars Cl. "B" Std. 840.72 (CY)	Pipe Removal (LIN. FT.)	Remarks
L 10+46	0401																											20	
L 11+15																												21	
L 13+34	0402																											17	
																												21	
LREV 17+75	0403																											54	
LREV 20+26	0405																												
LREV 20+96	0406																												
LREV 21+55	0407																												
LREV 21+92	0408																											20	
Y1 12+00	0409																											30	
LREV 21+10	0408A																												
Y1 13+40	0410																												
L 25+26																												24	
L 26+90	0502																											30	
L 28+48	0503																											32	
L1 25+30	0504							1						1															
	0504																											24	
L1 27+44	0505							1						1															
	0505																											262	
L1 28+60	0506							1						1															
	0506																												
L1 29+00	0507							1						1															
	0507																												
L1 29+30	0508							1						1															
	0508																												
L 31+39	0510																											27	
L 32+06	0512																											23	
L 32+70	0513																											21	
L 33+30	0514																											19	
L 33+92	0515																											20	
L 34+30	0516																											26	
L 34+42	0517																											20	
L 34+92	0518																											20	
L 36+40	0519																											20	
L 37+14	0520																											51	
L 38+04	0521																											28	
L 38+92	0522																											20	
L 30+74	0523																												
L 39+35	0602																												
L 40+90	0603																											21	
L 42+00	0604																											61	
L 42+00	0606																											20	
L 42+40	0607																											23	
L 42+89																												20	
L 43+84																												20	
L 51+25	0608																											20	
L 44+34	0609																											40	
L 45+75	0610																											49	
L 47+80	0612																											20	
Y2 12+25	0613																											80	
SHEET TOTALS								5						5														1224	
PROJECT TOTALS				1	1	1	7	9						17										2			0.9516	6706	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT